

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Diesel Engine

with type designations(s)
L/V 32/40CD

Issued to

MAN Diesel & Turbo SE
Augsburg, Germany

is found to comply with

DNV GL Rules for classification, Ships - Pt.4, Ch.3, Sec. 1, Reciprocating Internal Combustion Engines

Application:

propulsion / auxiliary

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL

This Certificate is valid until **10th January, 2021**

Issued at **Hamburg** on **11th January, 2016**

DNV GL local station: Augsburg

for **DNV GL**

Approval Engineer: R. Michael

F. Lutz
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Job Id: **262.1-000657-9**
Certificate No: **TAM0000040**

Product description

four stroke, in-line engine, v-engine, non-reversible, trunk-piston, with supercharging, with charge air cooling, constant-pressure charging system, direct injection, injection operation by cams, valve operation by cams, liquid fuel

Cylinder bore: 320 mm
Piston stroke: 400 mm

Additional place of production

MAN Diesel & Turbo, Filial of MAN Diesel & Turbo SE, Tyskland, Frederikshavn, Denmark, MAN Diesel & Turbo India Ltd, Aurangabad, India

Application / Limitation

Rated power [kW/cyl.]	500	500
Rated speed [rpm]	720	750
Mean effective pressure [bar]	25.9	24.87
Max. firing pressure [bar]	190	190
Rating Definition		

Type Approval documentation

08-168748, 11-057440, 14-032782, 262.1-000657-8

Tests carried out

Documentation:

Test report titel	32/40 500kW/cyl Type Approval Test
Test report reference	06-015283, 2005-11-25
Place of test	Augsburg, test bed no. 23
Date of test	2005-11-24 until 2005-11-25

Test engine:

Model	14V32/40CD
Serial no.	1065124
No. of cylinders	14
Power [kW/cyl.]	500
Speed [rpm]	720

Marking of product

The product to be marked with manufacturer's name or trademark and type number identification.

Periodical assessment

For retention of the Type Approval, DNV GL shall perform a Periodical Assessment every second year and before the expiry date of this certificate.

The objective of the Periodical Assessment is to verify that the conditions for the Type Approval are not altered since the Type Approval certificate was issued.

In case where the Type Approved product is manufactured at other companies, the Periodical Assessment shall verify that the Type Approval applicant has a quality control system for consistent production at their licensees/subcontractors. Furthermore Periodical Assessment shall be carried out randomly at these companies.



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Other conditions

Engine safety, control and monitoring systems, including sensors and actuators are not covered by this type approval certificate. Documentation for engine safety, control including speed governing and monitoring systems shall be submitted for approval according to DNV GL Rule Pt.4 Ch.9 Sec.1/ Item 1

END OF CERTIFICATE